



Analytical Methods Approved for Drinking Water Compliance Monitoring under the Disinfection Byproduct Rules

Analysis for the following disinfectants, contaminants, and other constituents shall be conducted in accordance with the methods in the following table, or their equivalent as determined by EPA. The methods are specified in 40 CFR 141.131 and Appendix A to Subpart C of Part 141. The monitoring requirements are specified in 40 CFR 141.132, 141.135, 141.600 - 141.603 and 141.620 - 141.628.

The CFR is the legal reference for approved methods and takes precedent over this table. The table should accurately reflect the analytical methods information published in 40 CFR 141. If you find discrepancies, please notify The Safe Drinking Water Hotline (800-426-4791) so that EPA can correct the table.

Contaminant	Method			EPA	Publication	
Organization	Number	Reference Title	Date	Publication Number	Order Number	Source of Method
Disinfectants						
Chlorine Dioxide		If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.				
EPA	327 Rev 1.1	Determination of Chlorine Dioxide and Chlorite Ion in Drinking Water Using Lissamine Green B and Horseradish Peroxidase with Detection by Visible Spectrophotometry	May 2005	EPA 815-R-05-008		http://www.epa.gov/safewater/methods/sourcalt.html
Standard Methods	4500-ClO ₂ D	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-ClO ₂ D	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-ClO ₂ E	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-ClO ₂ E	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-ClO ₂ E	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					

Disinfectants

Chlorine Dioxide

If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.

Standard Methods Online	4500-ClO ₂ E-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
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Combined Chlorine

If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.

ASTM International	D1253-03	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
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ASTM International	D1253-86	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
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Standard Methods	4500-Cl D	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
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Standard Methods	4500-Cl D	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
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Standard Methods	4500-Cl D	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
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Standard Methods	4500-Cl F	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
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Standard Methods	4500-Cl F	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
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Standard Methods	4500-Cl F	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
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Standard Methods	4500-Cl G	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
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Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Disinfectants						
Combined Chlorine		If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.				
Standard Methods	4500-Cl G	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl G	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	4500-Cl D-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-Cl F-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-Cl G-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Free Chlorine		If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.				
		If approved by the State, free chlorine may be measured using ITS free chlorine test strips. Use of the test strips is described in Method D99-003, "Free Chlorine Species (HOCl- and OCl-) by Test Strip," Revision 3.0, November 21, 2003, available from Industrial Test Systems, Inc., 1875 Langston St., Rock Hill, SC 29730.				
ASTM International	D1253-03	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Disinfectants						
Free Chlorine		If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.				
		If approved by the State, free chlorine may be measured using ITS free chlorine test strips. Use of the test strips is described in Method D99-003, "Free Chlorine Species (HOCl- and OCl-) by Test Strip," Revision 3.0, November 21, 2003, available from Industrial Test Systems, Inc., 1875 Langston St., Rock Hill, SC 29730.				
ASTM International	D1253-86	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
Standard Methods	4500-Cl D	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-Cl D	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl D	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-Cl F	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-Cl F	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl F	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-Cl G	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-Cl G	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl G	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-Cl H	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Disinfectants						
Free Chlorine		If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.				
		If approved by the State, free chlorine may be measured using ITS free chlorine test strips. Use of the test strips is described in Method D99-003, "Free Chlorine Species (HOCl- and OCl-) by Test Strip," Revision 3.0, November 21, 2003, available from Industrial Test Systems, Inc., 1875 Langston St., Rock Hill, SC 29730.				
Standard Methods	4500-Cl H	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl H	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	4500-Cl D-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-Cl F-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-Cl G-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-Cl H-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Disinfectants						
Total Chlorine		If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.				
ASTM International	D1253-03	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D1253-86	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
Standard Methods	4500-Cl D	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-Cl D	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl D	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-Cl E	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-Cl E	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl E	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-Cl F	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-Cl F	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl F	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-Cl G	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Disinfectants						
Total Chlorine		If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.				
Standard Methods	4500-Cl G	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl G	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	4500-Cl I	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-Cl I	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-Cl I	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	4500-Cl D-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-Cl E-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	4500-Cl F-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant	Method	Reference Title	Date	EPA	Publication	Source of Method
Organization	Number			Publication	Order	
				Number	Number	

Disinfectants

Total Chlorine	If approved by the State, residual disinfectant concentrations for chlorine, chloramines, and chlorine dioxide may be measured using DPD colorimetric test kits.
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Standard Methods Online	4500-Cl G-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.	http://www.standardmethods.org/
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Standard Methods Online	4500-Cl I-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.	http://www.standardmethods.org/
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Disinfection Byproducts

Bromate

ASTM International	D6581-00	Annual Book of ASTM Standards, Vol. 11.01	http://www.astm.org
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EPA	300.1 Rev 1.0	In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1	August 2000	EPA 815-R-00-014	PB2000-106981	http://www.epa.gov/safewater/methods/sourcalt.html
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EPA	317 Rev 2.0	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography with the Addition of a Postcolumn Reagent for Trace Bromate Analysis	July 2001	EPA 815-B-01-001		http://www.epa.gov/safewater/methods/sourcalt.html
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Ion chromatography and post column reaction or IC/ICP-MS must be used for monitoring of bromate for purposes of demonstrating eligibility of reduced monitoring, as prescribed in 40 CFR 141.132(b)(3)(ii).

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
<i>Disinfection Byproducts</i>						
Bromate						
EPA	321.8	In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1	August 2000	EPA 815-R-00-014	PB2000-106981	http://www.epa.gov/nerlcwww/ordmeth.htm
<p>Samples must be preserved at the time of sampling with 50 mg ethylenediamine (EDA)/L of sample and must be analyzed within 28 days.</p> <p>Ion chromatography and post column reaction or IC/ICP-MS must be used for monitoring of bromate for purposes of demonstrating eligibility of reduced monitoring, as prescribed in 40 CFR 141.132(b)(3)(ii).</p>						
EPA	326 Rev 1.0	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography Incorporating the Addition of a Suppressor Acidified Postcolumn Reagent for Trace Bromate Analysis	June 2002	EPA 815-R-03-007		http://www.epa.gov/safewater/methods/sourcalt.html
<p>Ion chromatography and post column reaction or IC/ICP-MS must be used for monitoring of bromate for purposes of demonstrating eligibility of reduced monitoring, as prescribed in 40 CFR 141.132(b)(3)(ii).</p>						
Chlorite (daily monitoring)						
ASTM International	D6581-00	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
EPA	300.0 Rev 2.1	In Methods for the Determination of Inorganic Substances in Environmental Samples	August 1993	EPA/600/R-93/100	PB94-120821	http://www.nemi.gov
EPA	300.1 Rev 1.0	In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1	August 2000	EPA 815-R-00-014	PB2000-106981	http://www.epa.gov/safewater/methods/sourcalt.html
EPA	317 Rev 2.0	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography with the Addition of a Postcolumn Reagent for Trace Bromate Analysis	July 2001	EPA 815-B-01-001		http://www.epa.gov/safewater/methods/sourcalt.html

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
<i>Disinfection Byproducts</i>						
Chlorite (daily monitoring)						
EPA	326 Rev 1.0	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography Incorporating the Addition of a Suppressor Acidified Postcolumn Reagent for Trace Bromate Analysis	June 2002	EPA 815-R-03-007		http://www.epa.gov/safewater/methods/sourcalt.html
EPA	327 Rev 1.1	Determination of Chlorine Dioxide and Chlorite Ion in Drinking Water Using Lissamine Green B and Horseradish Peroxidase with Detection by Visible Spectrophotometry	May 2005	EPA 815-R-05-008		http://www.epa.gov/safewater/methods/sourcalt.html
Standard Methods	4500-CIO2 E	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-CIO2 E	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-CIO2 E	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	4500-CIO2 E-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Chlorite (distribution system monitoring)						
ASTM International	D6581-00	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
EPA	300.0 Rev 2.1	In Methods for the Determination of Inorganic Substances in Environmental Samples	August 1993	EPA/600/R-93/100	PB94-120821	http://www.nemi.gov

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
<i>Disinfection Byproducts</i>						
Chlorite (distribution system monitoring)						
EPA	300.1 Rev 1.0	In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1	August 2000	EPA 815-R-00-014	PB2000-106981	http://www.epa.gov/safewater/methods/sourcalt.html
EPA	317 Rev 2.0	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography with the Addition of a Postcolumn Reagent for Trace Bromate Analysis	July 2001	EPA 815-B-01-001		http://www.epa.gov/safewater/methods/sourcalt.html
EPA	326 Rev 1.0	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography Incorporating the Addition of a Suppressor Acidified Postcolumn Reagent for Trace Bromate Analysis	June 2002	EPA 815-R-03-007		http://www.epa.gov/safewater/methods/sourcalt.html
Haloacetic acids (five)						
EPA	552.1 Rev 1.0	In Methods for the Determination of Organic Compounds in Drinking Water Supplement II The samples must be extracted within 14 days of sample collection.	August 1992	EPA/600/R-92/129	PB92-207703	http://www.nemi.gov
EPA	552.2 Rev 1.0	In Methods for the Determination of Organic Compounds in Drinking Water- Supplement III	August 1995	EPA/600/R-95-131	PB95-261616	http://www.nemi.gov
EPA	552.3 Rev 1.0	Determination of Haloacetic Acids and Dalapon in Drinking Water by Liquid-Liquid Microextraction, Derivatization, and Gas Chromatography with Electron Capture Detection	July 2003	EPA-815-B-03-002		http://www.epa.gov/safewater/methods/sourcalt.html
Standard Methods	6251 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition The samples must be extracted within 14 days of sample collection.	1995			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					

Disinfection Byproducts

Haloacetic acids (five)

Standard Methods	6251 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
The samples must be extracted within 14 days of sample collection.						
Standard Methods	6251 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	6251 B-94	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Total Trihalomethanes

EPA	502.2 Rev 2.1	In Methods for the Determination of Organic Compounds in Drinking Water-Supplement III	August 1995	EPA/600/R-95-131	PB95-261616	http://www.nemi.gov
If TTHMs are the only analytes being measured in the sample, then a PID is not required.						
EPA	524.2 Rev 4.1	In Methods for the Determination of Organic Compounds in Drinking Water-Supplement III	August 1995	EPA/600/R-95-131	PB95-261616	http://www.nemi.gov
EPA	551.1 Rev 1.0	In Methods for the Determination of Organic Compounds in Drinking Water-Supplement III	August 1995	EPA/600/R-95-131	PB95-261616	http://www.nemi.gov

Water Quality Parameters

Alkalinity

ASTM International	D1067-02 B	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D1067-92 B	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Water Quality Parameters						
Alkalinity						
Standard Methods	2320 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	2320 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	2320 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	2320 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	2320 B-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
U.S. Geological Survey	I-1030-85	In Methods for Determination of Inorganic Substances in Water and Fluvial Sediments, USGS Series: Techniques of Water-Resource Investigation Report; edited by Fishman, M.J. & Friedman, L.C.	1989		05-A1	http://infotrek.er.usgs.gov/pubs/
Bromide						
ASTM International	D6581-00	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
EPA	300.0 Rev 2.1	In Methods for the Determination of Inorganic Substances in Environmental Samples	August 1993	EPA/600/R-93/100	PB94-120821	http://www.nemi.gov
EPA	300.1 Rev 1.0	In Methods for the Determination of Organic and Inorganic Compounds in Drinking Water, Volume 1	August 2000	EPA 815-R-00-014	PB2000-106981	http://www.epa.gov/safewater/methods/sourcalt.html

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Water Quality Parameters						
Bromide						
EPA	317 Rev 2.0	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography with the Addition of a Postcolumn Reagent for Trace Bromate Analysis	July 2001	EPA 815-B-01-001		http://www.epa.gov/safewater/methods/sourcalt.html
EPA	326 Rev 1.0	Determination of Inorganic Oxyhalide Disinfection By-Products in Drinking Water Using Ion Chromatography Incorporating the Addition of a Suppressor Acidified Postcolumn Reagent for Trace Bromate Analysis	June 2002	EPA 815-R-03-007		http://www.epa.gov/safewater/methods/sourcalt.html
Dissolved Organic Carbon (DOC) for SUVA						
		DOC samples must be filtered through the 0.45 µm pore-diameter filter as soon as practical after sampling, not to exceed 48 hours. After filtration, DOC samples must be acidified to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified DOC samples must be analyzed within 28 days of sample collection. Water passed through the filter prior to filtration of the sample must serve as the filtered blank. This filtered blank must be analyzed using procedures identical to those used for analysis of the samples and must meet the following criteria: DOC < 0.5 mg/L.				
		Inorganic carbon must be removed from the samples prior to analysis.				
EPA	415.3 Rev 1.1	Determination of Total Organic Carbon and Specific UV Absorbance at 254 nm in Source Water and Drinking Water	February 2005	EPA/600/R-05/055		http://www.epa.gov/nerlcwww/ordmeth.htm
Standard Methods	5310 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition Supplement	1996			Standard Methods
Standard Methods	5310 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	5310 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	5310 C	Standard Methods for the Examination of Water and Wastewater, 19th Edition Supplement	1996			Standard Methods

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Water Quality Parameters						
Dissolved Organic Carbon (DOC) for SUVA		<p>DOC samples must be filtered through the 0.45 µm pore-diameter filter as soon as practical after sampling, not to exceed 48 hours. After filtration, DOC samples must be acidified to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified DOC samples must be analyzed within 28 days of sample collection. Water passed through the filter prior to filtration of the sample must serve as the filtered blank. This filtered blank must be analyzed using procedures identical to those used for analysis of the samples and must meet the following criteria: DOC < 0.5 mg/L.</p> <p>Inorganic carbon must be removed from the samples prior to analysis.</p>				
Standard Methods	5310 C	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	5310 C	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	5310 D	Standard Methods for the Examination of Water and Wastewater, 19th Edition Supplement	1996			Standard Methods
Standard Methods	5310 D	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	5310 D	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	5310 B-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	5310 C-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Water Quality Parameters						
Dissolved Organic Carbon (DOC) for SUVA		<p>DOC samples must be filtered through the 0.45 µm pore-diameter filter as soon as practical after sampling, not to exceed 48 hours. After filtration, DOC samples must be acidified to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified DOC samples must be analyzed within 28 days of sample collection. Water passed through the filter prior to filtration of the sample must serve as the filtered blank. This filtered blank must be analyzed using procedures identical to those used for analysis of the samples and must meet the following criteria: DOC < 0.5 mg/L.</p> <p>Inorganic carbon must be removed from the samples prior to analysis.</p>				
Standard Methods Online	5310 D-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Magnesium						
ASTM International	D511-03 A	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D511-03 B	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D511-93 A	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D511-93 B	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
ASTM International	D6919-03	Annual Book of ASTM Standards, Vol. 11.02				http://www.astm.org
EPA	200.5 Rev 4.2	Determination of Trace Elements in Drinking Water by Axially Viewed Inductively Coupled Plasma - Atomic Emission Spectrometry	October 2003	EPA/600/R-06/115		http://www.epa.gov/nerlcwww/ordmeth.htm
EPA	200.7 Rev 4.4	In Methods for the Determination of Metals in Environmental Samples Supplement 1	May 1994	EPA/600/R-94/111	PB95-125472	http://www.nemi.gov

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
<i>Water Quality Parameters</i>						
Magnesium						
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3111 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	3120 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3500-Mg B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	3500-Mg B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	3500-Mg E	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	3500-Mg E	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods

Contaminant	Method	Reference Title	Date	EPA	Publication	Source of Method
Organization	Number			Publication	Order	
				Number	Number	
Water Quality Parameters						
Magnesium						
Standard Methods Online	3111 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3120 B-99	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	3500-Mg B-97	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
pH						
ASTM International	D1293-84	Annual Book of ASTM Standards, Vol. 11.01				ASTM International (ASTM)
ASTM International	D1293-95	Annual Book of ASTM Standards, Vol. 11.01				ASTM International (ASTM)
ASTM International	D1293-99	Annual Book of ASTM Standards, Vol. 11.01				http://www.astm.org
EPA	150.1	In Methods for Chemical Analysis of Water and Wastes	March 1983	EPA/600/4-79/020	PB84-128677	http://www.nemi.gov
EPA	150.2	In Methods for Chemical Analysis of Water and Wastes	March 1983	EPA/600/4-79/020	PB84-128677	http://www.nemi.gov

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Water Quality Parameters						
pH						
Standard Methods	4500-H+ B	Standard Methods for the Examination of Water and Wastewater, 18th Edition	1992			Standard Methods
Standard Methods	4500-H+ B	Standard Methods for the Examination of Water and Wastewater, 19th Edition	1995			Standard Methods
Standard Methods	4500-H+ B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	4500-H+ B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	4500-H+ B-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
SUVA						
EPA	415.3 Rev 1.1	Determination of Total Organic Carbon and Specific UV Absorbance at 254 nm in Source Water and Drinking Water	February 2005	EPA/600/R-05/055		http://www.epa.gov/nerlcwww/ordmeth.htm
Total Organic Carbon						
		Inorganic carbon must be removed from the samples prior to analysis. TOC samples may not be filtered prior to analysis. TOC samples must be acidified at the time of sample collection to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified TOC samples must be analyzed within 28 days.				
EPA	415.3 Rev 1.1	Determination of Total Organic Carbon and Specific UV Absorbance at 254 nm in Source Water and Drinking Water	February 2005	EPA/600/R-05/055		http://www.epa.gov/nerlcwww/ordmeth.htm
Standard Methods	5310 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition Supplement	1996			Standard Methods

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Water Quality Parameters						
Total Organic Carbon		Inorganic carbon must be removed from the samples prior to analysis. TOC samples may not be filtered prior to analysis. TOC samples must be acidified at the time of sample collection to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified TOC samples must be analyzed within 28 days.				
Standard Methods	5310 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	5310 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	5310 C	Standard Methods for the Examination of Water and Wastewater, 19th Edition Supplement	1996			Standard Methods
Standard Methods	5310 C	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	5310 C	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods	5310 D	Standard Methods for the Examination of Water and Wastewater, 19th Edition Supplement	1996			Standard Methods
Standard Methods	5310 D	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	5310 D	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods
Standard Methods Online	5310 B-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/

Contaminant Organization	Method Number	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Water Quality Parameters						
Total Organic Carbon		<p>Inorganic carbon must be removed from the samples prior to analysis.</p> <p>TOC samples may not be filtered prior to analysis. TOC samples must be acidified at the time of sample collection to achieve pH less than or equal to 2 with minimal addition of the acid specified in the method or by the instrument manufacturer. Acidified TOC samples must be analyzed within 28 days.</p>				
Standard Methods Online	5310 C-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
Standard Methods Online	5310 D-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.				http://www.standardmethods.org/
UV254 for SUVA		<p>UV absorption must be measured at 253.7 nm (may be rounded off to 254 nm). Prior to analysis, UV254 samples must be filtered through a 0.45 µm pore-diameter filter. The pH of UV254 samples may not be adjusted. Samples must be analyzed as soon as practical after sampling, not to exceed 48 hours.</p>				
EPA	415.3 Rev 1.1	Determination of Total Organic Carbon and Specific UV Absorbance at 254 nm in Source Water and Drinking Water	February 2005	EPA/600/R-05/055		http://www.epa.gov/nerlcwww/ordmeth.htm
Standard Methods	5910 B	Standard Methods for the Examination of Water and Wastewater, 19th Edition Supplement	1996			Standard Methods
Standard Methods	5910 B	Standard Methods for the Examination of Water and Wastewater, 20th Edition	1998			Standard Methods
Standard Methods	5910 B	Standard Methods for the Examination of Water and Wastewater, 21st Edition	2005			Standard Methods

Contaminant	Method	Reference Title	Date	EPA Publication Number	Publication Order Number	Source of Method
Organization	Number					
Water Quality Parameters						
UV254 for SUVA		UV absorption must be measured at 253.7 nm (may be rounded off to 254 nm). Prior to analysis, UV254 samples must be filtered through a 0.45 µm pore-diameter filter. The pH of UV254 samples may not be adjusted. Samples must be analyzed as soon as practical after sampling, not to exceed 48 hours.				
Standard Methods Online	5910 B-00	Online version of Standard Methods for the Examination of Water and Wastewater. Approval year by Standard Methods Committee is designated by last 2 digits. This is the only online version that is approved.			http://www.standardmethods.org/	

Contact information for methods that are not available on the Internet are summarized in the report titled "Sources of Approved Analytical Methods for National Drinking Water Regulations."